

U.S. Patent Application Serial No. 10/535,393  
Reply to Office Action of November 29, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A container and generally elongated item feed-dispensing machine, of the type ~~incorporating~~ including a hopper (1) in which the objects are randomly introduced[[,]] and in which said objects finally adopt a vertical arrangement in desired positions, ~~with the same position that is pre-established for all of them~~, comprising: a hopper having an outlet, wherein arranged at the said outlet of said hopper (1) is a metering device (5-10) leading to a discharge plate (22) ending at a lifting means (6) provided with a plurality of blades (11) of a grooved free edge, said discharge plate (22) having an also grooved edge (23) so as to intertwine with the blades (11), and said lifting means (6) ending at a transfer plate (31), also of a grooved edge, for access to a transfer and selection station in which a base plate (29) framed by two side rails (30) collaborates, located on which is a conveyor (27), located above the base plate (29) and provided with grooved blades (28) similar to those of the lifting means (6), a plate (29) provided with a central opening (17) for the dropping of the objects, with a positional selection criterion of ~~said the~~ the objects, towards a vertical positioning station, ~~the beginning of which is having a first end~~ located under the opening (17) of the base plate (29), said vertical positioning station having a second end whereby movement of objects from said first end to said second end defines a feed direction for the object, wherein two tilted and static walls (34) are provided, arranged parallel to ~~said the~~ said the feed direction of the object, linearly moving forward inside of which are vertical pushing means (35) attached to a conveyor (36) defining a horizontal path for said pushing means (35) which drag the objects, separated from one another, on a bottom conveyor (41) on which they are placed.

2. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein said the metering device (5) is formed by two or more blades (8) radially arranged about a shaft (9) perpendicular to said the feed direction of said the lifting means, which shaft is provided with a duly controlled rotational movement.

3. (Currently Amended) - A container and generally elongated item feed-dispensing

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machine according to claim 1, wherein said the metering device is formed by ~~means of~~ a shaft (9) attached to which are two radial blades (8), said two radial blades defining a first area and a second area circumferentially therebetween, said two radial blades further joined to one another by a cylindrical section (10) in said first area and defining a void in said second area, said cylindrical section arranged and configured to close ~~the said~~ outlet opening of the said hopper (1), said metering device being actuatable ~~able to be actuated~~, in a duly controlled reciprocating movement, so as to ~~put~~ locate said void ~~the space comprised between two blades (8) thereof in front of said outlet the opening of the said hopper (1).~~

4. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1 wherein said the metering device is formed by ~~means of~~ a shaft (9) attached to which are two radial blades (8) joined to one another by a cylindrical section (10) closing ~~the said~~ outlet opening of the said hopper (1), said metering device being able to be actuated, in a duly controlled reciprocating movement, so as to put ~~the a~~ space comprised between said two blades (8) thereof in front of said opening ~~the opening of the hopper (1);~~ and located on ~~the said~~ discharge plate (22) are two side walls (18), while at the same time arranged at the beginning of ~~the said~~ lifting means (6) are two other side walls (16) on which respective articulated hatches (19) are supported which guide the objects towards said ~~the pre-selection~~ lifting means (6).

5. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein the said lifting means (6) has a receiving area (13) where the objects are located in a lowered transverse position with respect to the feed direction in the spaces defined by ~~the said~~ blades (11), of a rectilinear profile, arranged horizontally or with a slight upwards inclination so as to facilitate the entrance of the objects, a pre-selection area (14) where the said conveyor acquires a curved configuration in the vertical direction so as to cause the poorly placed objects to fall, and an end area in which its profile is straight again and rises up to the transfer station.

6. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 5, wherein the ~~useful~~ distance between the said blades (11), which

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can be planar or of a triangular profile, is less than twice the width or thickness of the object to be selected.

7. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 5 wherein the ~~useful~~ distance between the said blades (11), which can be planar or of a triangular profile and having a bottom edge, is less than twice the width or thickness of the object to be selected; and  
the said blades (11) of the said lifting means (6) are exchangeable so as to make it possible to handle different types of objects, for which purpose there is a grooved guide (25) fixed to the said conveyor and arranged perpendicularly to the feed direction that fits in a counter-groove (26) existing on the bottom edge of the blade.

8. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein the said side rails (30) of the said object transfer and selection station are arranged in a funnel shape with respect to the feed direction of the object, having a maximum spacing in its an initial area and a minimum spacing in its an end area, the first said maximum spacing exceeding the total length of the object, and the later said minimum spacing corresponding to the length of the body of said object, ~~i.e. in its geometric differentiation~~, defining a geometric differentiation such that when the object reaches the narrowest said end of the funnel area, its the geometric differentiation is located above the corresponding rail, making the opposite end drop first.

9. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein the said rails (30) located on the said base plate (29) are arranged in a funnel shape with respect to the feed direction of the object, such that the front end of the said funnel has a width exceeding the total length of the object, and the outlet width matches the total length of said object, the said base plate (29) having a rod (32) aligned in the feed direction of the object and located ~~on the axis of symmetry of the~~ between said rails (30), such that when the object is located above said opening (17) it is suspended by the said rod (32), swinging due to the offset between its center of gravity and said rod (32).

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10. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein ~~the~~ said rails (30) located on ~~the~~ said base plate (29) are arranged in a funnel shape with respect to the feed direction of the object, its initial spacing being greater than the total length of the object, whereas its spacing at its outlet matches said total length of the object, the transfer section incorporating one or several suitable sensors for identifying the differences which the object may have, and said sensors ~~acting on~~ triggering retractable guides (33) located under the rails (30), said sensors location one on either side[[,]] above the opening (17) of the said base plate (29), ~~the~~ said guide (33) corresponding to the end of the object which ~~must finally~~ should adopt a lower position being retracted.

11. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 1, wherein located under the opening (17) of the base plate (29) are two tilted and static walls (34) arranged parallel to the feed direction of the object, forming an open drop conduit leading to a said bottom conveyor (41), ~~a plurality of vertical~~ said pushing means (35) acting on said open conduit, which pushing means are in turn attached to a said conveyor (36) defining a horizontal path for said pushing means, which are spaced from one another by a magnitude that is equivalent to ~~the~~ a maximum width of the object.

12. (Previously Presented) - A container and generally elongated item feed-dispensing machine according to claim 11, wherein each pushing means (35) is formed by a fixing arm (38) attached to the conveyor (36) and a vertical pushing part (39) joined to said arm by means of one or more vertical locking profiles (40) such that said pushing part is easily removable by vertical movement.

13. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 11, wherein each pushing means (35) is formed by a fixing arm (38) attached to ~~the~~ said conveyor (36) and a vertical pushing part (39) joined to said arm by means of one or more vertical locking profiles (40) such that said pushing part is easily removable by vertical movement; and ~~the~~ said pushing means (35) incorporate respective notches or recesses (43) on the bottom portion of their front and back sides for coupling to ~~of the~~ individual supports (42).

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14. (Currently Amended) - A container and generally elongated item feed-dispensing machine according to claim 11, wherein each pushing means (35) is formed by a fixing arm (38) attached to the said conveyor (36) and a vertical pushing part (39) joined to said arm by means of one or more vertical locking profiles (40) such that said pushing part is easily removable by vertical movement; and the said pushing means (35) incorporate respective notches or recesses (43) on the bottom portion of their front and back sides for coupling to ~~of the~~ individual supports (42); and  
the pushing means (35) have a wedge projection (46) on their bottom portion causing the separation between one another when they are accumulated on a ~~the~~ general conveyor (44), regulating their entrance into the spaces defined by the said notches (43) of the said pushing means (35).